



# State of Utah

## DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER QUALITY

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IM/035/009

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### **CERTIFIED MAIL**

(Return Receipt Requested)

December 1, 1998

Mr. Steve Lackey  
Kennecott Barneys Canyon Mining Co.  
P.O. Box 311  
Bingham Canyon, UT 84006-0311

Dear Mr. Lackey:

Subject: Probable out-of-compliance, Permit No. UGW350001

Examination of ground water monitoring data (please refer to the enclosed table and graphs) indicates that levels of Total Dissolved Solids (TDS) in monitor well BC-283 have exceeded the permit protection level of 1064 mg/l since the April 25, 1997 sampling event. This protection level is from the September 1, 1995 version of the permit, which has expired but is still legally binding pending issuance of a renewed permit. The protection level to be contained in the revised permit is still under review.

Also, levels of TDS in well BC-849 have shown an increasing trend since 1995. Protection levels were never set for this well in the September 1, 1995 version of the permit, but will be set for the renewed permit. Using the earlier monitoring data from this well, when water quality would be least likely to be affected by the mining operation, a protection level of 1191 mg/l for TDS was set for this well in the draft renewed permit. The well has exceeded this level since the March 25, 1997 sampling event. The well has also shown an increasing trend in sulfate and detections of cyanide. Although these cyanide detections are at levels below health-based standards, cyanide is a synthetic compound and its presence in the ground water is indicative of releases of process water.

According to the provisions of the September 1, 1995 version of the permit, you must begin a monthly monitoring schedule for these two wells. Please begin monthly monitoring for the regular quarterly monitoring parameters until further notice.

Because TDS and sulfate are parameters which could be influenced by natural causes as well as mining activities, it is our intention to provide for a process of evaluating protection level exceedances for these parameters in the renewed permit without automatically going into out-of-

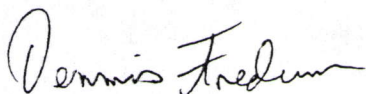
Mr. Steve Lackey  
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compliance status. Under these permit conditions, exceedances for TDS or sulfate would require investigation by the permittee to determine their cause. If they are due to natural variation, there would be no out-of-compliance situation. Any water quality changes which are caused by mining activities would not be considered natural variation.

Accordingly, we are requesting at this time that you begin an investigation into the rising trend of TDS in these two wells, using ground water quality data and chemical analysis of the process waters at a minimum, and any other evidence you can gather which would determine the cause of the exceedances. Please submit a report on the results of your investigation within 120 days of receipt of this letter.

Please contact Mark Novak of this office if you have any questions.

Sincerely,



Dennis Frederick, Manager  
Ground Water Protection Section

DF:mtn/fb

Enclosures (3)

cc: Salt Lake Health Dept. (W/encl)  
Wayne Hedberg, Div. Of Oil, Gas, Mining (W/encl)

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